



# Cost-efficient synthetic biology tools

acib has developed easy-to-use synthetic biology tools for the cost-efficient i) incorporation of non-natural amino acids, ii) assembly of multi-part DNA-constructs or iii) markerless gene integration/editing!

## TECHNOLOGY

acib has an excellent expertise in developing novel synthetic biology tools and has proven their cost-efficient application in numerous industrial projects:

- i) acib established techniques for the biosynthesis of proteins containing non-canonical amino acids (ncAAs) in micro-organisms. The main advantage of ncAAs is that they feature unusual side chain chemistries that make valuable chiral synthons for pharmaceuticals, new building blocks to expand protein engineering scopes or provide reactive handles for biorthogonal conjugation to improve stability, plasma half-life or performance.
- ii) acib offers endonuclease-free technique for cloning and assembly (e.g. Gibson Cloning/Assembly) to build entire genomes *de novo*.
- iii) acib features synthetic biology tools for genome engineering e.g. lambda Red recombineering), metabolic reprogramming Via combinatorial pathway assembly.

## OFFER

Under protection of a CDA/NDA we provide you with professional strategies for your protein or metabolite of choice. Any IP developed in such a project would fully belong to the investor/industrial partner.

## EXPERTS

Dr. Birgit Wiltschi

## AVAILABLE FOR

- Investments
- Joint Research Projects
- Contract Research

## DEVELOPMENT STATUS

Technology Readiness Level 2  
(Technology concept formulated)

## IPR

Will be generated for our industrial partner / investor

## KEYWORDS

- Synthetic Biology
- Non-natural amino acids (ncAAs)
- Directed modification of proteins
- Protein Engineering
- Bioorthogonal conjugation
- Genome Editing
- Endonuclease-free Cloning
- Metabolic Reprogramming
- Combinatorial Assembly

## CONTACT

acib GmbH, Krenngasse 37, 8010 Graz

+43 316 873 9316

bd@acib.at

www.acib.at